

**Health Science Education  
Anatomy and Physiology  
Course Code #5509**

**1 Credit**

School Year \_\_\_\_\_

Term: Fall Spring

Rate each student on the following

- 3 – Mastered (Can work independently with no supervision)
- 2 – Require supervision (Can perform with limited supervision)
- 1 – Not mastered (Requires instructions and close supervision)
- N – No exposure (No experience or knowledge in this area)

Student: \_\_\_\_\_ Grade \_\_\_\_\_

Teacher: \_\_\_\_\_ School \_\_\_\_\_

Number of Competencies in Course: **38**

Number of Competencies Mastered:

Percent of Competencies Mastered:

**Standard 1.0 The student will explore the organizational structures of the body from the molecular to the organism level.**

\*One of these columns must be checked

Learning Expectations		Check the appropriate Mastery or Non-Mastery column*	Rating (Circle one)				Mastery	Non-Mastery
			3	2	1	N		
1.1	Distinguish between anatomy and physiology.							
1.2	Investigate the structure of the major body systems and relate the functions.							
1.3	Investigate the major body cavities and the subdivisions of each cavity.							
1.4	Apply correct anatomical terminology of body parts and regions.							

**Standard 2.0 The student will explore the integumentary, skeletal, muscular systems and relate the structures of the various parts to the functions they serve.**

\*One of these columns must be checked

Learning Expectations		Check the appropriate Mastery or Non-Mastery column*	Rating (Circle one)				Mastery	Non-Mastery
			3	2	1	N		
2.1	Relate the functions of the integumentary system and explain the physiological mechanisms that make the functions of this system possible.							
2.2	Illustrate the skeletal system (the bones and their parts) and relate the physiological mechanisms that help the skeletal system fulfill its function.							
2.3	Illustrate the various kinds of muscles, including major muscles of the body and explain the physiology of muscle contraction.							
2.4	Analyze cellular metabolism and respiration.							

**Standard 3.0 The student will investigate, compare and contrast methods of body control by the nervous and endocrine systems.**

\*One of these columns must be checked

Learning Expectations		Check the appropriate Mastery or Non-Mastery column*	Rating (Circle one)				Mastery	Non-Mastery
			3	2	1	N		
3.1	Compare and contrast the anatomy and physiology of the central and peripheral nervous systems.							
3.2	Describe the structure, function and developmental aspects of neurons and their supporting glial cells.							
3.3	Investigate the physiology of electrochemical impulses and neural integration.							
3.4	Investigate organs utilized by the body for perception of external stimuli and to the maintenance of homeostasis.							
3.5	Investigate the major organs of the endocrine system and demonstrate the relation of each structure to hormonal regulation of homeostasis.							
3.6	Analyze the parts of the spinal cord, neurons, neuroglia and the neuromuscular junction, using microscopic slides, diagrams, or models.							
3.7	Analyze sensory perceptions.							
3.8	Analyze diseases as related to each system.							

**Standard 4.0 The student will investigate the structure and function of the cardiovascular system with an emphasis on the blood, heart, and the lymphatic system and attention to the immune response.**

\*One of these columns must be checked

Learning Expectations		Check the appropriate Mastery or Non-Mastery column*	Rating (Circle one)				Mastery	Non-Mastery
			3	2	1	N		
4.1	Describe the molecular and cellular components of the blood.							
4.2	Describe the functions of the blood within the human body.							
4.3	Demonstrate an understanding of the anatomy of the heart and the flow of blood through the heart.							
4.4	Elucidate the biochemical and physiological nature of the heart's functions.							
4.5	Describe the structure of blood vessels and label the major arteries and veins.							
4.6	Describe the physiological basis of circulation and blood pressure.							

4.7	Demonstrate the role of the cardiovascular system in maintaining homeostasis.	3	2	1	N		
4.8	Describe the major organs of the lymphatic system.	3	2	1	N		
4.9	Demonstrate an understanding of the immune response.	3	2	1	N		

**Standard 5.0 The student will investigate the structures of the body associated with the absorption and excretion of materials, from the molecular, cellular, organ and system levels of function.**

\*One of these columns must be checked

Learning Expectations		Check the appropriate Mastery or Non-Mastery column*	Rating (Circle one)				Mastery	Non-Mastery
5.1	Analyze the major organs of the digestive system.		3	2	1	N		
5.2	Observe the gross anatomy of each organ within the digestive and the urinary systems.		3	2	1	N		
5.3	Describe mechanisms of digestion and absorption within the body		3	2	1	N		
5.4	Relate how nutrition, metabolism, and body temperature are interrelated.		3	2	1	N		
5.5	Describe the role of the urinary system in body waste management.		3	2	1	N		
5.6	Examine the physiological basis for the elimination of water and salts through the skin and lungs.		3	2	1	N		
5.7	Demonstrate OSHA guidelines for chemical and radiation standards in a health care facility.		3	2	1	N		

**Standard 6.0 The student will investigate the reproductive system and its association with the growth and development of organisms.**

\*One of these columns must be checked

Learning Expectations		Check the appropriate Mastery or Non-Mastery column*	Rating (Circle one)				Mastery	Non-Mastery
6.1	Identify the structures and related functions of the male and female reproductive system.		3	2	1	N		
6.2	Compare and contrast the hormonal regulations found in the reproduction system.		3	2	1	N		
6.3	Compare and contrast the processes and products of oogenesis and spermatogenesis.		3	2	1	N		
6.4	Indicate the duration and relate the major events at each stage of gestation.		3	2	1	N		
6.5	Investigate congenital disorders; their physiological, biochemical, hormonal, and chromosomal causes.		3	2	1	N		
6.6	Investigate how the structure of DNA relates to growth and development.		3	2	1	N		

Additional Comments \_\_\_\_\_